SCHOLASTIC Teacher EDITION

Junior Scholastic

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Teaching Guides for This Issue

Science—the Farmer's Friend (p. 8)
Farm Youth—U.S.A. (p. 9)
Machines on the March—Reading Feature (pp. 10, 11)
They Bring 'em Back Alive (pp. 14, 15)

Concepts Developed In the Farm Unit

Farming has changed radically in the past 75 years because of a variety of scientific discoveries. Science has taught farmers to make better use of the soil through rotation of crops, to protect it through irrigation, flood control, proper plowing. It has shown how chemical fertilizers build rich soil and chemical sprays control crop-destroying insects.

Work formerly done by many men and horses can now be done by specially designed machines and fewer men.

Healthier, more productive farm animals are the result of breeding experiments. Experiments carried on with crops have resulted in increased yield.

Thus, although there are fewer farmers in America today, they feed many more people thanks to more efficient methods.

Suggestions for Using The Farm Unit

Science—the Farmer's Friend

Formal Talk

Aims: To encourage the pupils to do original thinking about study methods.

2. To note how much the farmer's work contributes to his country's prosperity.

To the pupils: Select some topic of study suggested by the theme article and outline a talk on it. For example:

During World War II, Herbert Hoover, former President of the United States, said, "World peace means a peace of bread. The first word in a war is spoken by guns—but the last word has always been spoken by bread." *Bread* is used in the sense "the staff of life," necessary food.

Pupils may choose to talk on:

a. Fewer farmers raise more food.
b. Crop rotation helps keep soil rich.
c. Water needs to be used wisely.
d. Uses of chemical fertilizers.
e. Farming contrasts—present and past.
f. Changes wrought through breeding experiments.

Farm Youth—U.S.A.

Conversation Leads

Aim: To encourage natural conversation through developing a theme.

To the teacher: Suggest that five or six pupils gather about a table with their *Junior Scholastics* in hand. One person may be appointed as conversation leader. He will open the talk using one of the following statements which he reads aloud. The others then join in with their remarks on the subject. When the conversation lags, he introduces another statement.

1. We all know that the United States owes much of its prosperity to the farmers. What are some of the things they produce, Evelyn?

2. Years ago, a boy learned about farming just by helping his father on the farm. What are some of the changes in the training of farm youth today?

3. Will you read the pledge of the 4-H Club, Esther? What are the ways each of us can follow that pledge?

4. Does the Future Farmers of America organization differ from the 4-H Clubs?

5. Let us discuss some of the benefits our country has already gained from these two clubs for young farm people.

6. The article points out some of the advantages of farm life. What are they?

Poetry, Song and Art

To the pupils: The farmer and his work have inspired many artists to do some of their best work. Will you divide into three research groups to gather some of this material to share with your classmates? You may choose poetry, music, or art, whichever has the greatest appeal to you.

Machines on the March

Observation and Oral Reading

Aim: To use reading to supplement or confirm information gained from studying pictures.

To the teacher: Gather the reluctant readers about a table with their copies of *Junior Scholastic*. Ask someone to read aloud the title of the article. Then suggest that all look at the first picture and tell all they can about its subject matter—early farming methods. Someone may recognize the scythe and know of its limited use today. How was it used in the earlier times? What other tools were used then? When the young people have given their information ask someone to read the paragraph. Comment favorably if the pupils have mentioned some of the information given in the article. Also give credit for any additional facts they may have offered.

Research

Aim: To coordinate information gained from an article with other stories and articles.

To the pupils: Several of the countries you have read about in recent copies of *Junior Scholastic* still use these primitive tools and methods of farming. Search through the theme articles in back copies of your magazines for sentences, paragraphs, pictures which show this to be true. The information may not be given in these words but the meaning will be clear. For example; if it is stated that a country has little or no electric power, equipment such as electric milking machines could not be used.

LOOKING AHEAD WITH JUNIOR SCHOLASTIC

Next Issue: April 29

Theme Article: U. S. Pacific Trust Territory (Micronesia: The Very Small Islands)

World Friendship Series: How We Live in the Marshall Islands

Reading Feature: Ideas, Ideas, Ideas

May 6

Theme Article: U. S. Pacific Trust Territory (Uncle Sam in the Pacific)

World Friendship Series: How We Live on Saipan

Reading Feature

Natural Science Feature: Recording a Vacation

They Bring 'em Back Alive

"Meet the Press" Broadcast

Aim: To find new and interesting ways of using *Junior Scholastic*.

To the pupils: A popular type of radio program is one where an authority on some subject is questioned by reporters from various newspapers. Will three volunteers make themselves familiar with the work of PEI as described in this article? Each may hold himself responsible for answering questions on a specific section. One may plan to answer questions pertaining to the founding of PEI and the general way it functions. Another may be specially informed on the work done with cotton, fruit and soybeans. The third may plan to answer questions on research which aids doctors.

A group of four reporters may be selected to question the experts. They may use questions which have been submitted by the whole class. A reporter sometimes has to ask a number of questions to clarify a certain point. These have to be organized to bring out the desired information. Each reporter will want to prepare his material beforehand.

The pupils selected may take their places at the front of the room while the announcer opens the program.

Questions such as the following may be written by the class for the reporters:

1. Sir, I understand you work for the PEI. What do those initials stand for? Under what government department do you work?

2. We used to hear a great deal about damage done to cotton by boll weevils. In recent years there has been little mention of them. Did your organization have any part in controlling the pests?

3. What is cortizone? For what is it used?

"Ad Wise"

A number of advertisements in this special issue were prepared especially on the theme of "modern, scientific farming." Students may glean much information on modern farming and on vocational opportunities in farming and related job fields by studying these ads.

1. *Du Pont ad* (*p. 2*): How has chemical science helped the farmer? How have Du Pont scientists helped grain growers? Fruit growers? What has Du Pont done to help control bugs?

2. *General Electric Ad* (*p. 24*): How does Farmer Chernoff use electricity to save work on his New York dairy farm? How does General Electric use its new high-altitude test chamber? How does Moormaw "entertain" his chickens?

3. *U. S. Rubber ad* (*pp. 16, 17*): What two partners does agriculture have? How does science help the farmer? How does industry help? What are some of the 500 rubber products that the U. S. Rubber Co. makes for the farmer and his family? Which of these products does your family have? What is one way that the U. S. Rubber Co. helps Future Farmers?

4. *American Trucking Industry ad* (*pp. 12, 13*): What farm trucks pictured in this ad have you seen? What were they carrying? Where were they probably going? How have modern trucks "revolutionized" the American farmer's method of selling? What are some of the ways farm foods are processed while en route from the farm to your dining-room table? How has the trucking industry helped your family to buy a bigger variety of goods at lower prices?

QUICK QUIZ

Ten Questions for a Five-minute Quiz

1. In recent years, has the U. S. farm population been: increasing, decreasing, or staying the same? (Decreasing)

2. Has the general population of the U. S. been: increasing, decreasing, or staying the same? (Increasing)

3. Who invented the cotton gin? (Eli Whitney)

4. For what kinds of farm work are airplanes used? (Crop dusting)

5. Name one of the two big organizations which help train farm youth to become good farmers and good citizens. (Four-H Clubs *and* Future Farmers of America)

6. From what countries did a U. S. plant explorer bring back soybeans? (China and Japan)

7. In what two states would you be most likely to find spoonbills? (Texas and Florida)

8. Name the famous ship which won the battles of New Orleans and Mobile. (The *Hartford*)

9. Chile is planning an air route to Australia via what continent? (Antarctica)

10. Name three out of the four states which, at present, stand to benefit most from offshore oil. (California, Louisiana, Texas, Florida)

Answers to Quiz-word Puzzle, p. 23

ACROSS: 1-Genoa; 6-grackle; 8-he; 9-VI; 11-oats; 14-beet; 16-rot; 17-oar; 18-giant; 20-largest; 22-do; 23-S.O.S.; 24-or; 26-for; 28-are; 29-too; 31-ire; 32-black; 34-day.

DOWN: 1-Gr.; 2-ea.; 3-N.C.; 4-O.K.; 5-A1.; 6-gear; 7-ever; 8-Ho; 10-it; 12-toga; 13-stirs; 14-bones; 15-eats; 19-ago; 20-loot; 21-tore; 22-D.F.; 25-re; 27-rob; 28-ark; 30-old; 31-icy; 33-A.A.

Answers to Citizenship Quiz, p. 15

1. ON OUR FARMS: 1-F; 2-F; 3-X; 4-X; 5-F; 6-F.
2. BRING 'EM BACK ALIVE: 1-a; 2-c; 3-b; 4-c; 5-a.
3. FARM PROGRESS: 1-machines; 2-Eli Whitney; 3-Cyrus McCormick; 4-fertilizer; 5-Future Farmers.
4. WHAT'S NEW: Korea; offshore oil; spoonbills; save their lives; Antarctica; air route; the *Hartford*.

Tools for Teachers

Pacific Trust Territory

April 29 & May 6 in *Junior Scholastic*

BOOKS: *My First Geography of the Pacific*, by a A. Sondergaard, $2.00 (Little, 1944). *The Pacific: Its Lands and Peoples*, Frances Carpenter, $2.16 (American Book, 1951).

ARTICLES: "Pacific Wards of Uncle Sam," by W. R. Moore, *National Geographic Magazine*, July, 1948. "Two Thousand Islands—And We're Stuck With Them," by Robert Sherrod, *Saturday Evening Post*, Nov. 8, 1952. "The Trust Territory," *Life*, Apr. 25, 1949. "The Pacific Islands We Hold," by Francis B. Sayre, *Atlantic Monthly*, Jan. 1950.

A listing of films and pamphlets was given in last week's Lesson Plan.

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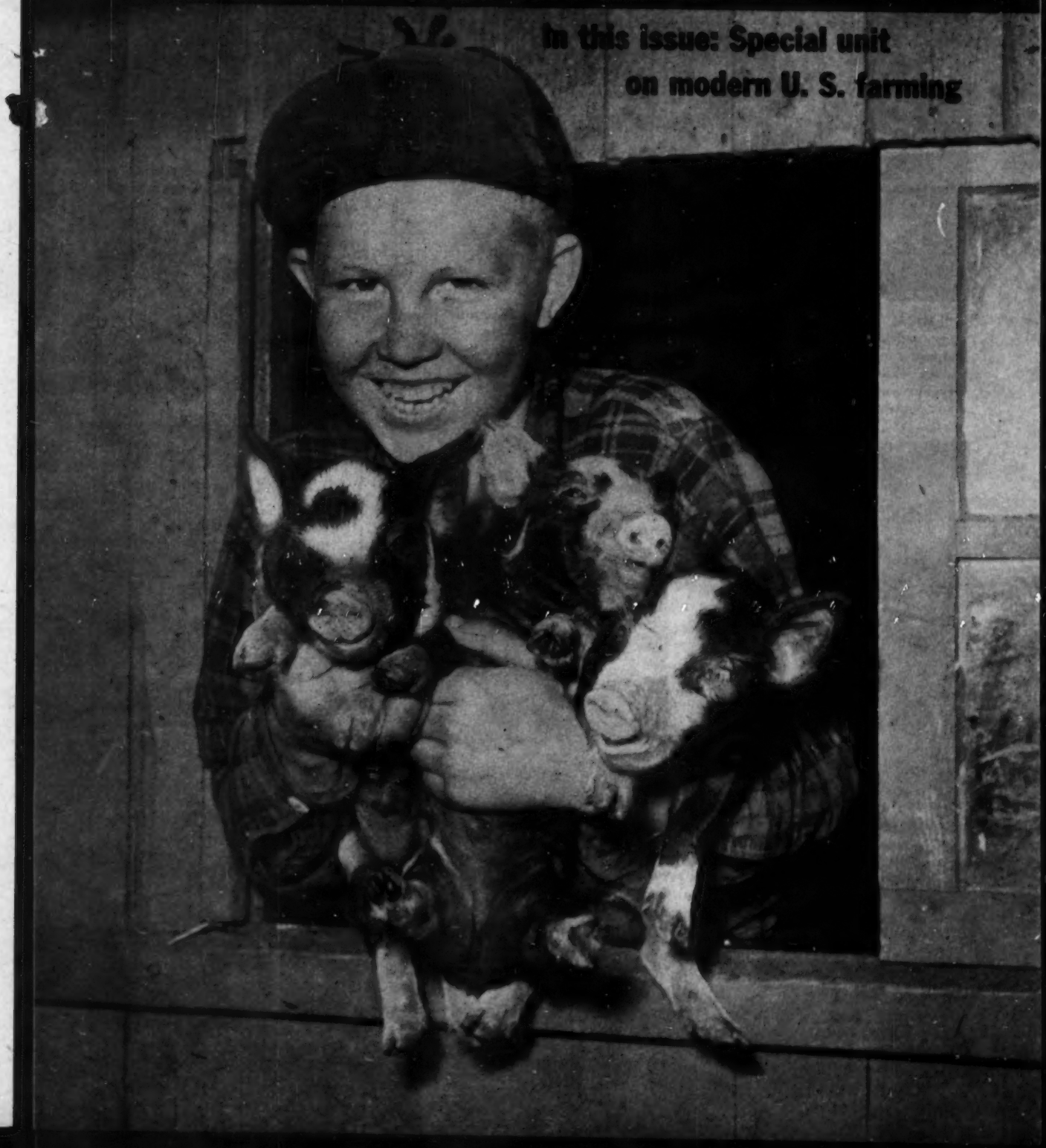
Junior Scholastic



In this issue: Special unit on modern U. S. farming

SCIENCE IN ACTION

CHEMICAL SCIENCE has given the farmer many allies in his fight to produce more crops and livestock at lower cost. For example, one Du Pont development that helps the cattleman is a feed supplement. By replacing part of the protein, it makes possible economical, nourishing mixed rations. Helpful, too, are the methoxychlor insecticides. They are safe to spray on animals as well as buildings, yet one application often stays effective against flies for weeks.

GRAIN GROWERS use chemicals developed by Du Pont scientists to protect seeds from rot, smut and other diseases. A dollar invested often brings $20 in larger crops and higher quality. Farmers also use chemical compounds which kill weeds, leaving the grain unharmed to grow and thrive.

VEGETABLES have a special appeal for many of the more than 200 different insect pests that thrive in North America. In a 20-year program, Du Pont scientists have tested 14,000 different compounds for "bug control." This entomologist is giving a cabbage leaf the armyworm test.

FRUIT GROWERS depend on chemical science to help fight insects and diseases. Du Pont "Fermate" Ferbam Fungicide, for example, combats scab and most other fungous diseases that cut apple yields and quality. Du Pont EPN saves many a peach grower's crop from insects.

TODAY, more than 100 Du Pont engineers and scientists spend part or all of their time on the problems of the farmer. They work in laboratories, in the field, and on three Du Pont experimental farms in Maryland, Texas and California. Most were once farm boys and girls themselves. Now, because they studied chemistry and engineering at college, they can help make life better for their farmer friends.

Questions students ask Du Pont

Why is scientific work always so secret?

—J. A. S., Oregon

A company spending large amounts of time and money on a scientific project seldom discusses it openly until the desired product is in the company's hands. Talking too soon would, of course, aid competitors. It would also hurt the company's reputation with the public, should the project turn out unsuccesafully.

Do all jobs in science call for college training?

—H. L. T., Tennessee

Certain jobs are open to high-school graduates. For work in research and development, college training is essential. About 70% of Du Pont scientists have B.S. degrees, 15% have M.S. degrees. The other 15% are Ph.D.'s.

Send your questions on careers in science to Science in Action, *2521 Nemours, Wilmington, Del.*

DU PONT

REG. U. S. PAT. OFF.

BETTER THINGS FOR BETTER LIVING
... THROUGH CHEMISTRY

TAKE IT EASY, BOYS !

When you equip your lightweight bike with Goodyear Lightweight tires you pedal, roll and steer easier. That's because these Goodyear Lightweight tires have specially designed rib treads. What's more, they give you a safer, surer grip on the road. Made in both Hook Bead and Straight Side Bead Types to fit all American bikes – and most imported bikes.

Choose either one of these Goodyear Lightweights next time you need tires. Your neighborhood bicycle dealer has them now.

Goodyear, Cycle Tire Department
Akron 16, Ohio

HOOK BEAD LIGHTWEIGHT (left)—Built to offer minimum rolling resistance and easy pedaling. Four ribs assure long wear, easy steering. Goodyear-made cord gives ultimate in protection against breaks and bruises.

STRAIGHT SIDE LIGHTWEIGHT (right)—Entirely new tread design that offers easy rolling and easy pedaling without sacrificing durability. Goodyear-made cord offers best protection against breaks and bruises.

Always ask for

GOODYEAR *bike tires*

MORE PEOPLE RIDE ON GOODYEAR TIRES THAN ON ANY OTHER KIND

We think you'll like "THE GREATEST STORY EVER TOLD"—every Sunday—ABC Radio Network—THE GOODYEAR TELEVISION PLAYHOUSE—every other Sunday—NBC TV Network

"UNDER PAR" to "WONDER STAR"

in one easy lesson!

"Pete was dismal!"
vowed the crowd,
vim-less, wit-less,
in a cloud!

One chum said, "Let's be specific...
Eat right, and you'll be terrific!"

Taste plus—*protein for growth,*
NABISCO SHREDDED WHEAT has both!

Now he's got what
once he lacked,
Pete's a NEW lad,
that's a fact!

Don't just say "SHREDDED WHEAT"... say "NABISCO SHREDDED WHEAT"

Scientific discovery! New tests prove NABISCO's exclusive cooking process actually improves the protein in NABISCO SHREDDED WHEAT over that in natural wheat! NABISCO's *finer protein* gives you a generous energy reserve . . . keeps you going stronger *longer*. Don't accept substitutes—ask for NABISCO SHREDDED WHEAT, the nourishing cereal with the delicious "sweet-wheat" flavor!

BAKED BY NABISCO · NATIONAL BISCUIT COMPANY

NOTE TO TEACHERS: FREE! NEW TEACHING AIDS "Make Mine Breakfast"—a clever 6-page brochure, gayly illustrated, plus 3 student project sheets. Includes nutrition planning service, time and money management, suggestions for family and party breakfasts. Teachers—write to National Biscuit Company, Niagara Falls, New York, Dept. J-353, specifying number of copies desired.

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NEWS ROUNDUP

U. N. and Communists Begin Little Switch

As you read this story Operation Little Switch may be getting under way. That's the U. N.'s name for the exchange of sick and wounded prisoners in Korea. The U. N. and the Communists agreed to start the exchange not later than April 21.

The U. N. holds many more prisoners than the Communists. It will return 5,100 North Koreans and 700 Chinese prisoners at the rate of 500 a day. The Communists will return the U. N. prisoners at the rate of 100 a day. About 120 are Americans.

Each side plans to send prisoners to the other side by truck or railway. Each side promises not to attack any prisoner convoys.

All sick and wounded prisoners are to be exchanged at Panmunjom, site of the truce talks. The talks were suspended last October by the U. N. (see April 8 and 15 issues of *Junior Scholastic*).

But the truce talks may soon start again. If Operation Little Switch is successful, it may lead to Operation Big Switch—the exchange of *all* prisoners held by both sides.

President Eisenhower recently warned that U. N. troops will have to remain in Korea "for quite a while" even if peace comes.

Spring Check-up for Bikes Helps Insure Safe Riding

It's time to give your bike a spring check-up for safe riding. Here are some things you should check up on:

Tires. Check for imbedded metal, glass, cinders. Pump enough air in tires to keep them firm and hard. Check valves for leaks.

Coaster brake. Does it brake evenly? Unless you're an expert, have it adjusted by a bike repair man.

Front light. It should throw light 500 feet. Rear reflector should be visible at 300 feet.

Be sure your bell or horn works, wheel and saddle nuts are tight, bearings oiled. Tighten chain links, wheel spokes, handle bars. Replace worn handle grips.

Wide World

Here is the Echauri family, complete with Henry Ford Echauri, born during 21-month, 16,875-mile trip. Man in center is mechanic who also made trip.

PARAGUAYANS IN MODEL T DRIVE 16,875 MILES TO N. Y.

A 1927 Model T Ford can really go places, say the travelers from Paraguay. In 21 months they covered 16,875 miles from Asuncion, Paraguay, to New York City. The party consisted of Mr. and Mrs. Ramon Echauri, their son (born during the trip), and their friend, Albino Pino del Valle, an auto mechanic.

They left Asuncion on July 2, 1951, and drove through a dozen South and Central American countries, entering the U. S. at Laredo, Texas. They enjoyed the trip—but the Ford had 31 flats. And sometimes the travel was tiring and discouraging.

"It took us two weeks to cross the Andes Mountains from Argentina into Chile," Mr. Echauri recalled. "Sometimes we had only a cart track to follow."

In Ecuador, the overloaded Ford stalled on soft roads. The travelers unloaded the car and pushed it up hills. Then they returned for their baggage and carried it on their backs to the Ford.

Some Indians told them they were heading the wrong way. So they went back over the hills—pushing the Ford, then carrying the baggage. But natives of a small village told them they had been on the right track in the first place. They turned around again.

In Colombia, Henry Ford Echauri was born.

"We had one scare in Atlanta, Georgia," Mr. Echauri related. "A big car smashed us up. It looked like the end of our expedition. But a garage owner repaired the car without charge. And he took us all to his home for two days."

"Hammer-shuld" Is Best Way, Says New Secretary-General

"Hammer-shield will do, but Hammer-shuld—*shuld* rhymes with *pulled* —is the more correct way to say my name." That's the latest advice from Dag Hammarskjold, new Secretary-General of the United Nations. Mr. Hammarskjold arrived from Sweden earlier this month.

Congress Has Bill On U.S. Offshore Oil

Vast oil deposits lie under the ocean off the U. S. coast. The richest known deposits are off California, Louisiana, Texas, Florida. Every day hundreds of wells, on towering stilts and floating platforms, bring up huge amounts of oil from below the ocean floor.

The oil comes in handy for the U. S. Today it is using more oil than ever for its trains, planes, cars, factories, homes, and so on. But the offshore land has set off a sizzling argument again: Who owns it—the states or the Federal Government?

The U. S. Congress soon may come up with an answer. Recently the House of Representatives passed an offshore bill. It would give the states control of all land underwater within their boundaries. The states could claim all resources found underwater.

The Senate is discussing the bill. It will become a law if approved by the Senate and signed by President Eisenhower. The President is known to be in favor of giving states control of offshore land.

AN OLD ARGUMENT

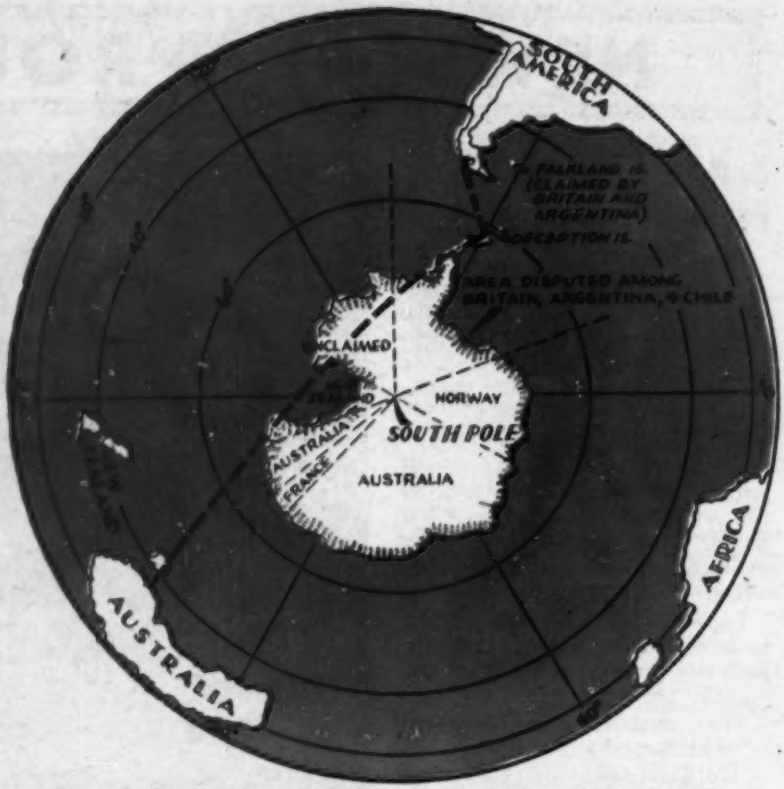
The offshore argument is nothing new. It has been going on for 20 years. Sometimes it is called the "Tidelands Oil" dispute. Actually, that's a wrong name. A tideland is a strip of seacoast covered by water at high tide, uncovered at low tide.

A tidelands area belongs to a coastal state. No one argues about that. The offshore argument is about land that begins where the tidelands end—land *always* underwater.

In 1946 and 1953 former President Truman vetoed (turned down) offshore bills. Both would have given the states control of offshore land. Truman said the whole country, not any one state alone, should benefit from underwater resources.

The Supreme Court has ruled that the Federal Government has rights to these resources, but that Congress can give the rights to the states.

Many Congressmen say a state should control any land and resources within its boundaries. The Federal Government, they go on, should not take away any "buried treasure" which belongs to the state.



Heavy broken line shows proposed new air route from Chile to Australia. Deception Island is claimed by Britain and Argentina as well as by Chile.

Planes, Explorers Make Antarctic News

Chile is planning over-the-South-Pole air routes to save many hours of flying time. The broken line on the map shows the probable route of the first flight. It will be from the lower tip of South America to Deception Island to Australia. (For stories on over-the-North-Pole flights see *Junior Scholastic*, Oct. 1 and Dec. 10.)

Australia also is making news in Antarctica. Australian scientists are preparing to explore the frozen continent, one of the world's coldest regions. Its temperatures range from 50 to 100 degrees below zero.

Australians will set up a science station in the ice-locked land. They will study Antarctica's plant and animal life, glaciers, weather conditions, and mineral resources. Explorers report that Antarctica probably holds rich stores of coal, uranium, gold, silver, platinum.

Antarctica is as big as Australia and the U. S. together. But no one country owns Antarctica. Sections of the continent have been claimed by several countries (see "pie-cut" slices on map). For several years, Britain and Argentina have been quarreling over their claims.

U. S. explorers have claimed parts of Antarctica, but our Government has never backed their claims. Nor does it recognize* the claims of other countries. U. S. explorers first reached Antarctica in 1928.

Scottish Fish Are Shocked By New Aluminum Fences

Fish of Scotland are in for a surprise. Scottish engineers have built aluminum fences near dams in Highland rivers. The fences send out a steady stream of electric current to shock fish.

The shocks are not strong and cannot harm the fish. As a matter of fact, the shocks will save their lives. Many fish have been killed because they swam too close to the dams. They were sucked into openings leading to the spinning turbines. The shocks scare the fish away.

News in a Nutshell

Tinted windshields are causing trouble in drive-in theatres. On the road, tinted windshields keep the glare from dazzling the driver. But at the movies, the tint blurs black-and-white pictures and makes Technicolor unrecognizable. Five million cars are due to get tinted windshields in the next 18 months. Drive-in owners are hoping that the automakers will think up a new way to make tinted windshields.

Connecticut has returned a wounded gander to Canada. The gander belonged to a flock which wintered in Connecticut. In March the flock left for its breeding ground in Canada. One gander, which had been wounded, couldn't get off the ground. Two others tried to help it into the air, but had to give up. Canada wanted the gander flown north by plane. At first Connecticut refused, saying the gander was quite happy there. But then the state changed its mind. So the gander is back in Canada.

A 1,700-mile-an-hour plane may soon be making ordinary faster-than-sound aircraft look like dawdlers. It is the Bell X-1A, now being test-flown at Edwards, Calif. (The speed of sound is about 750 mph at sea level.)

The *U.S.S. Hartford* may soon be restored to its former glory. The *Hartford* is the ship which won the battles of New Orleans and Mobile during the War-Between-the-States. When the Union line of ships was crumbling at Mobile, Admiral Farragut gave his famous order: "Damn the torpedoes! Full steam ahead." And the *Hartford* went ahead. Since then, she's been crumbling apart in harbor at Norfolk, Va. Plans are now afoot to have her repaired and sailed to Mobile.

Seventy Bible scrolls★ have been found in caves overlooking the Dead Sea. The scrolls are believed to be about 2,000 years old. They were found by Arab shepherds. Thirty of the scrolls are manuscripts of 16 Old Testament Books. The scrolls are made of papyrus★ and leather, and written in Hebrew, Aramaic★, and Greek. They will tell us much about the Bible and about Biblical times.

Science News

Willys-Overland Photo

URANIUM WAGON: This is Uncle Sam's latest uranium hunter. The boom can lower the sensitive probe 1,000 feet into crevices or over cliffs. If uranium is present, the unit built into the station wagon reacts to the radioactivity.

Return of the Spoonbills

The spoonbills are nesting again in Texas and Florida. And there are more of them than ever.

The spoonbill is one of our most beautiful birds. About the size of a wild turkey, it has a body covered with soft feathers—pure white, delicate pink, and flaming red.

This beautiful plumage★ nearly meant the end of the spoonbills. Thousands of the birds were slaughtered so that their feathers could be made into fans and feathered hats.

Then the National Audubon Society moved in. It set aside some islands off the Texas coast where the spoonbills nested and said that no one could hunt them there. A few years later, the spoonbills' nesting places in Florida Bay became part of Everglades National Park where no one is allowed to hunt. The giant birds began to multiply. Now you can see them in hundreds.

Fighting Polio

Another long step forward has been taken in the fight against polio. Recently, Dr. Jonas Salk, 38-year-old scientist at the University of Pittsburgh, announced that he had a new way to fight the disease. He gets some polio germs, mixes them with oil, and injects them into people's muscles. When the polio germs enter, the body summons a special army to fight them. The army is made up of tiny antibodies★. They resist any further attacks of polio.

The danger in this method is that the germs will actually cause the person to catch polio. Dr. Salk makes sure this won't happen by killing the germs before he injects them. The dead germs are too weak to cause polio. But they're strong enough to summon the antibodies. Dr. Salk says that his cure is not yet ready for general use. It will have to go through many more tests before it's proved absolutely safe.

Missile-launching Sub

A U. S. submarine can now launch a guided missile, announces the U. S. Navy. The submarine is the *Tunny*. The missile is the "Regulus." It's 30 feet long, cigar-shaped, and looks like a swept-wing jet fighter.

The Regulus is believed to have a top speed of about 1,000 mph and a range of at least 500 miles. It's kept in a missile hangar which rides piggy-back on the submarine.

In training flights, the Regulus carries landing gear, so that it can be used again and again. In action, it would fly only once.

★Means word is defined on page 18.

SCIENCE—

The Farmer's Friend

JERRY Forbes' farm has belonged to his family since 1725. That's when his great-great-great-great-grandfather first cleared and cropped the ground. In those days it took Mr. Forbes, his three sons, and a hired man all their time to farm 50 acres.

Today Jerry farms 225 acres and does it by himself. He keeps a herd of 30 cows and grows the crops to feed them. He has two 25-acre apple orchards, a 25-acre plot of hardwoods, and a one-acre family garden, 100 chickens, and some pigs.

How does he manage to do so much more than his ancestor could? Jerry uses the inventions and know-how which modern science has given him.

Jerry's story is that of millions of U. S. farmers. Science has changed agriculture more in the past 75 years than it had changed in the previous 75 centuries. It has made farming more and more efficient. The result is that fewer and fewer farm workers are feeding more and more people every year.

Let's look at some figures. In 1910, nearly 92 million people lived in the U. S.; more than 32 million of them lived on farms. By 1930 there were 122 million people in the U. S.; only 30 million of them lived on farms. And by 1952, the U. S. population was 158 million; but the number of people living on farms had dropped to below 25 million.

In 1910 one farm worker produced enough food for eight people. In 1930 he produced enough food for 11 people. Today he's producing enough food for 16 Americans. And we have plenty left over to send to our hungry friends abroad.

How can farmers produce so much more food with so many fewer workers?

Well, in the first place, they make better use of the soil. In the old days, farmers grew the same crop on the same ground year after year. This wore the soil out. Now they rotate crops. A farmer knows that a certain crop takes certain minerals and "foods" from the soil; it puts others in. So he plants that crop one year. The next year he plants a crop which makes use of the "foods" put in by the first crop and which replaces the "foods" taken out.

Irrigation projects have converted dry, useless ground into fertile farm land. Flood control schemes keep many of our huge rivers from overflowing their banks and ruining millions of acres of crops as they used to. Modern methods of plowing protect rich topsoil against being blown away by wind or washed away by rain.

New wonder chemicals help, too. Krilium, for example, changes the make-up of soil, turning once barren soil into fertile land. Chemical fertilizers build rich soil.

Chemical sprays fight crop-destroying insects. Insects used to ruin many of our crops, such as potatoes. Now farmers spray DDT over their potato fields, kill the insects, and harvest twice as many potatoes. Experts say these sprays have increased our harvests by about 10 per cent.

Another of science's gifts to the farmer is the machine. He used to have horses pulling his plow. Today a tractor does it, and much faster. He used to gather his harvest by hand. Today he's got a baler to gather his hay, a combine to cut and thresh his wheat. And he's got special picking machines for potatoes, apples, sugar beets, cotton, and many other crops.

BETTER ANIMALS AND CROPS

Scientific research has improved the animals themselves. By special breeding methods, scientists have produced cows which yield more milk, pigs and steers which give more meat, hens which lay more eggs, and sheep which grow more wool. Changes in the feed we give our animals make them grow faster. Better feeding has made our farm animals healthier and more productive.

Breeding experiments have improved our crops. Hybrid corn is a good example. It is made by mixing two special strains of corn. Using this improved type of corn, farmers have increased our corn crop by about 30 per cent.

Science helps the U. S. farmer produce more and better food. And we are sharing that knowledge with others. Teams of U. S. farm experts are at work in many other countries. They are teaching U. S. know-how to farmers who eke out a living by the very same methods their ancestors used.

Each farmer helped feed and clothe 4.7 people

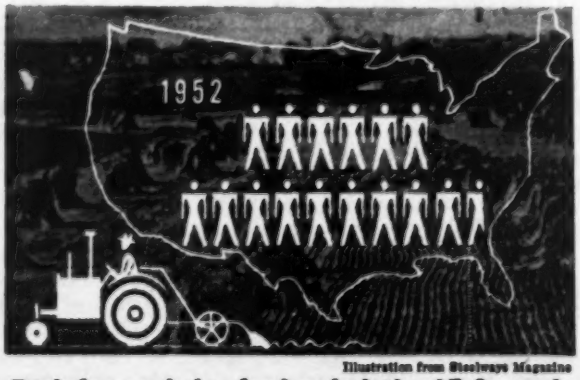


Illustration from Steelways Magazine

Each farmer helps feed and clothe 15.6 people

U. S. Rubber photo

4-H Club members from Elgin, Ill., go through a square dance at the recreation and rural arts breakfast during a National 4-H Club Congress held in Chicago.

FARM YOUTH— U.S.A.

FROM the farms of America comes much of our nation's wealth. Skilled hands and strong muscles supply a bountiful flow of vegetables, fruits, grains, dairy and livestock products, cotton, wool.

U. S. farmers lead the world in the use of scientific farming methods. This means that farmers must be well-trained and up-to-date. So our farm youth are very busy in school and after school. They're fattening up their farming "know-how."

Along with the usual subjects, U. S. farm youth study agriculture:

They study farm animals, their health, and how to fight the diseases which attack them.

They study the science of soil care and soil conservation.

They learn how to improve farming methods through better sowing, cultivation of crops, harvesting, marketing.

They learn how to operate and repair trucks, tractors, plows, harrows, and other farm machinery.

One out of every five boys or girls in the U. S. lives on a farm. Many of them belong to farm youth organizations such as the 4-H Club or the Future Farmers of America. Both organizations lend a hand training farm youth to become good farmers and good citizens for the years to come.

The 4-H Club is made up of more than two million boys and girls who live on farms or in small towns. Each member takes this pledge: "I pledge—my Head to clearer thinking, my Heart to greater loyalty, my Hands to larger service, and my Health to better living, for my club, my community, and my country."

Four-H Club members, like good farmers, are hard-working. Recently, in one year, they raised 600,000 acres of food crops, more than one million head of livestock, and nine million chickens. They showed they could "earn while they learn."

The Future Farmers of America has about 350,000 members, all boys. It has helped train hundreds of thousands of boys to become good farmers, fruit growers, poultrymen, cattlemen, dairymen. It also trains them to become leaders in their communities. They learn how to draw up plans for improving the community, how to carry out plans by teamwork.

The Future Farmers earn money from their farm training. But more important than that, they learn how to farm properly. For example, they study the safest ways of using farm machinery. Recently, by giving talks and demonstrations, 7,000 Future Farmers helped cut farm accidents more than 50 per cent in Ohio.

There's lots to be learned about farm work. But there's also time for fun. Farm young people enjoy the same amusements other young people do. They also have community sings, taffy pulls, rodeos, corn-husking bees, box suppers, barn dances, hay rides, sleigh rides.

HEALTHY AND HARD WORKING

Farm life is a healthy life, too. There's plenty of fresh air, sunshine, and good food. The average farm family raises two thirds of its food from its own land. Most modern U. S. farms have large freezers for storing vegetables, fruits, and meats "fresh from the farm." Many farm youths eat better than city youths, food experts say.

Farm youth work harder than those in the city. A farm has dozens of chores which must be done every day—repair work, feeding the livestock, gathering up eggs, and so on. Often boys are up at the crack of dawn to help their fathers. Girls keep busy with housework.

Life on the farm today is a lot better than it was in grandfather's day. Homes have modern inventions and farms are being improved by science. So farm youth usually decide to stick with farming. Some inherit the family property and become full-time farmers. Others study agriculture in college and become teachers, scientists, food experts, and so on. All do their share in enriching America's farmland.

"I like this farming life. I'm not leaving it," said a young farmer recently. That about sums up the feelings of many farm youths.

Machines on the March

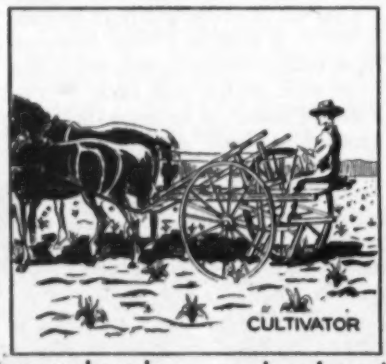
A Picture Story of the Farming Revolution

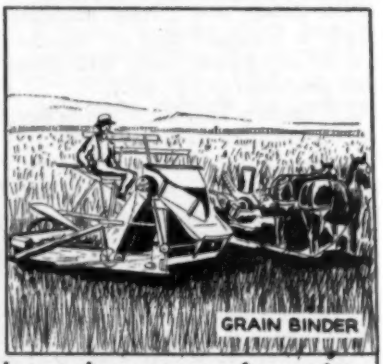
The early U.S. farmer used methods and tools little better than those of Egyptians 6,000 years ago. He hitched his wooden plow to a draft animal. But most other tasks he toiled at by hand, using sickles, scythes, and flails.

"There must be better ways to farm," some Americans said. Early inventors developed the all-iron plow—faster-working, longer-lasting. But farmers, by tradition, are suspicious of change. It took years before Americans generally adopted metal plows.

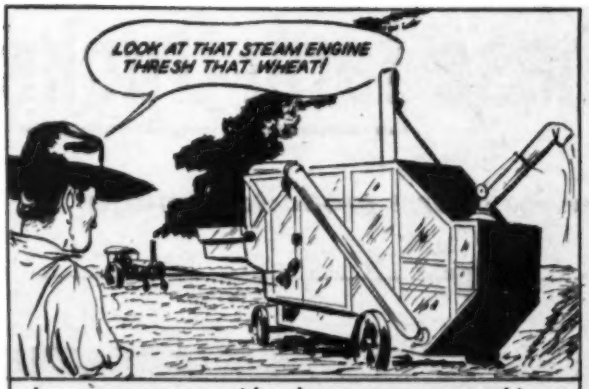
One of the first and most famous farm machines was the cotton gin invented by Eli Whitney (1793). The gin's metal teeth separated seeds from cotton much faster than human fingers could. It enabled the South to vastly increase cotton output in 1800s.

A Virginian named Cyrus McCormick invented a mechanical reaper in 1831. Drawn by a horse team, it cut grain much faster than the hardest-working farmer with the sharpest scythe. Thanks to the reaper, U.S. grain output soared.



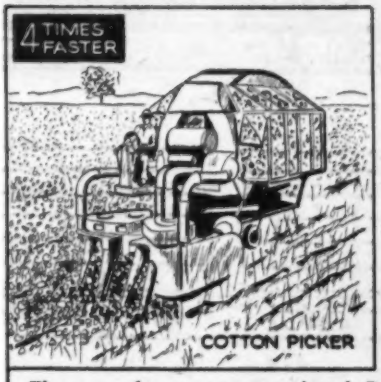


Because of his machines (and his improved seeds, fertilizers, insecticides, and stock-raising methods), the U.S. farmer of today produces at least 15 times more in a year than his counterpart could a century ago. Our farm population produces all the food we need, and provides surplus manpower for running our industries, too. Thanks to his machinery, the American farmer no longer lives a life of sun-up to sun-down drudgery, as he did back in the days before the great revolution in farming!



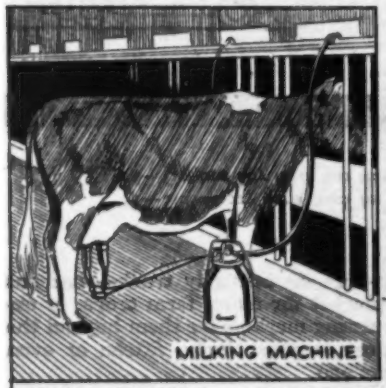
Inventors came up with a dozen more new machines in the 19th century for U. S. farm teams to pull—drills for planting seed; cultivators for turning the earth; binders for tying grain; mowers for cutting hay; revolving rakes for harvesting it. All saved

time, work, and boosted production. With their new machines, U. S. farmers in 1860 raised crops that would have taken the whole labor force of the nation to harvest by hand methods. But even bigger miracles lay ahead.



The age of power was at hand. Engine power was replacing human and animal muscles. First came farm machines powered by steam engines. But the new era didn't get underway on a big scale in the U.S. until the advent of the gasoline engine (about 1900).

The gasoline-driven tractor came in—and the horse and mule went out. The tractor worked faster and harder than old Dobbin could. Today, the U.S. has 4,500,000 farm tractors. Since 1918, the number of U.S. horses has fallen by two thirds.

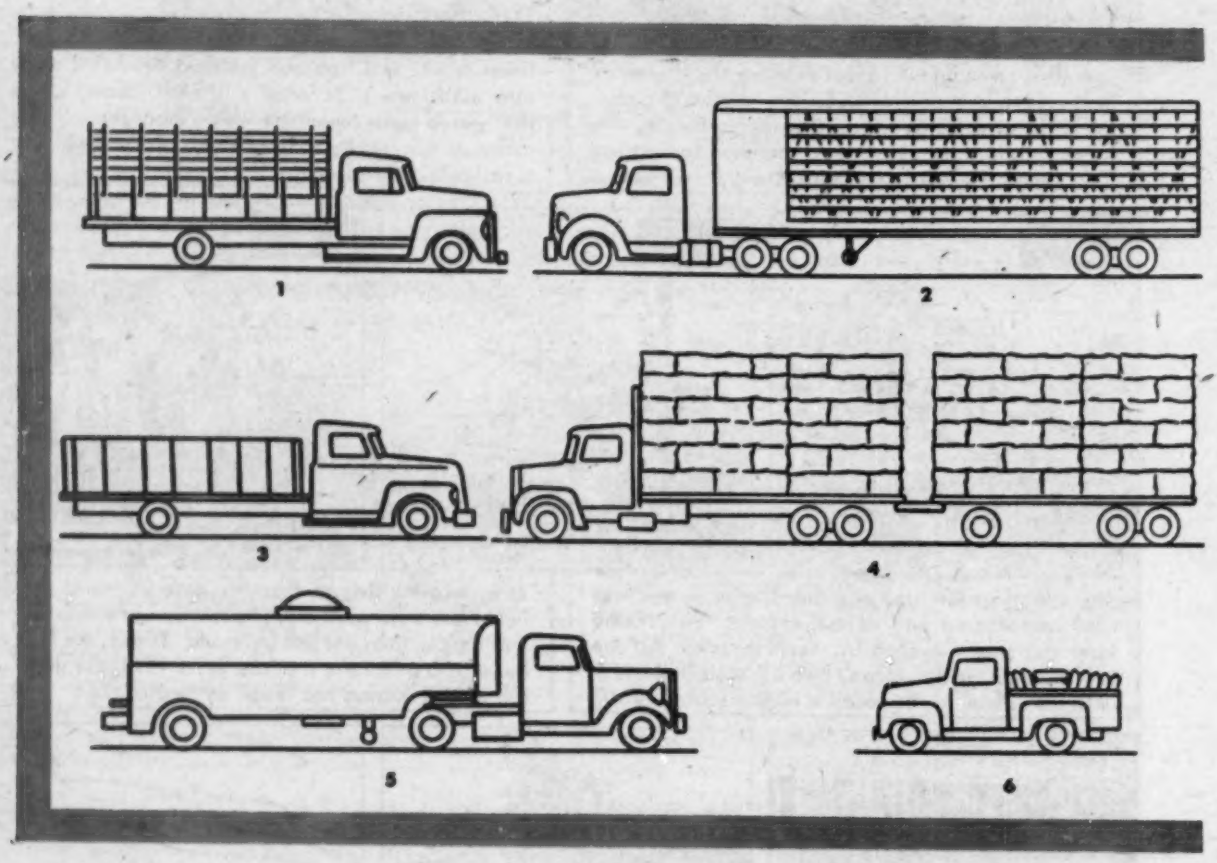


Today, the U.S. farmer uses many types of amazing farm machines—and new ones are being invented all the time. With them, he can produce a cotton crop four times faster than the farmer of 50 years ago; a wheat crop, five times faster; and a corn

crop, six times faster. American farms now use twice as much mechanical and electrical horsepower as all manufacturing combined. Machines harvest 98 per cent of our nation's wheat, 75 per cent of our corn, 66 per cent of our potatoes.

How many of these farm trucks-

These trucks take America's farm products to market



1—State-body farm truck for local hauling; 2—Livestock carrier for long distance; 3—Open grain truck; 4—Flat-bed hay truck and trailer; 5—Milk tank truck; 6—Ton-and-a-half farm pick-up truck.

In the past thirty years, trucks have revolutionized the American farmer's method of selling his crops. A truck comes right to his door and picks up his grain, livestock, soybeans and other commodities. Or he uses his own farm truck to take these items to grain elevator, stockyards or processing plant. The trucks shown above all TAKE the farmer's crops to the *primary* market—but then another truck takes over. And it's this second truck—it's an *inter-city* truck—that has MADE the market for many farm crops, or expanded the existing markets for them beyond the dreams of most farmers thirty, fifteen or even ten short years ago.

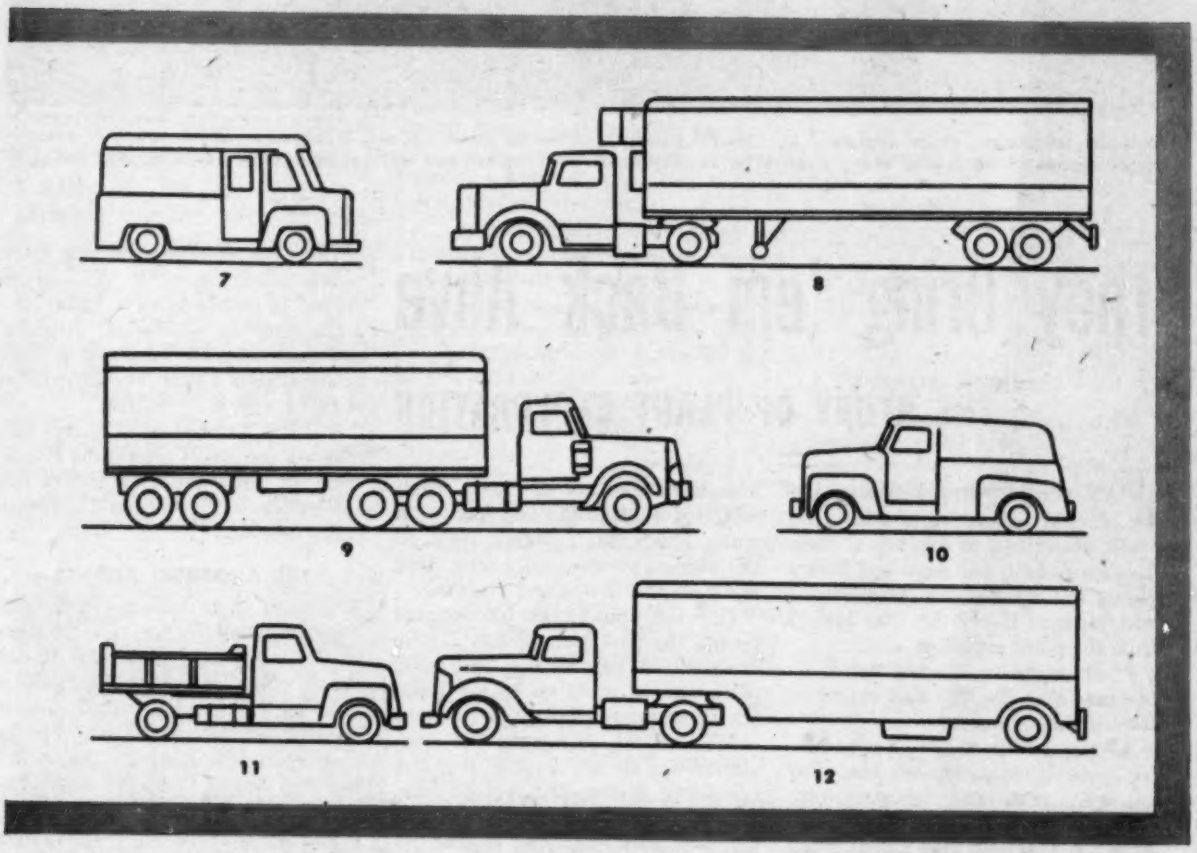
Three-fourths of the food on America's tables arrives there *in a form different from the form in which it left the farm!* It's frozen, or canned, or processed and packaged—and it gets to the local

AMERICAN TRUCKING ASSNS., INC.

American Trucking Industry

going-to-market can you identify?

These trucks make or expand the market for farm products



7—Bread delivery truck; 8—"Reefer"—refrigerated truck; 9—Tractor-trailer for general merchandise; 10—Panel delivery truck used by local merchants; 11—Ton-and-a-half dump truck; 12—Van-type truck with extra volume trailer—often used to haul wholesale bakery products.

grocery store by *truck*. Inter-city trucks, with their flexible schedules and delivery-direct-to-the-customer, help local merchants of food, clothing, building materials, household furnishings—practically everything your family buys—to sell fresh stocks of a wide variety of goods at low prices. This bigger selection of fresher merchandise has caused consumer buying to skyrocket. More people than ever before are buying frozen foods, cotton clothing, shoes, corn products, woolens and packaged foods—and the farmer is *selling* more crops to keep up with the demand!

Working with and for the farmer, the trucking industry has given him new markets, wider opportunity, greater *freedom to sell* where and to whom he chooses. As you identify the trucks shown here, you'll see how vital and *happy* a combination this partnership is.

American Trucking Associations, Inc., Washington 6, D.C.

Photos from U. S. Department of Agriculture

JUNGLE HAZARDS: Plant explorer, Dr. David Fairchild, leads expedition by dugout along river. River is only road to the interior of this West Indian island. Island is volcanic. In rich soil and warm climate plant growth is quick and thick.

They Bring 'em Back Alive

THE STORY OF PLANT EXPLORATION

HAVE you ever heard of plant explorers? These men roam the earth, sometimes at the risk of their lives, searching for new and better plants to improve our food, farms, and gardens. Every day you benefit from the plant explorers' work.

Plant exploring started hundreds of years ago. But the first explorers were unofficial ones.

All major crops grown in our country were born someplace else. For example, corn and tobacco were brought here by Indians from South America. Our hay and cereal crops were brought by pioneer settlers from Europe.

CAREER MEN

Today's U. S. plant hunters make a career of it. Our Government first sent men out on plant expeditions in 1898. Since then our hunters have brought back more than 200,000 live varieties of fruits and vegetables, grains and grasses, trees and ornamental plants.

The explorers work for the Department of Agriculture's Division of Plant Exploration and Introduction (known as "PEI"). Uncle Sam's plant hunting began on a small scale. Today it's huge. PEI's headquarters are in a handsome building in Beltsville, Maryland. Packets of seeds, roots wrapped in burlap, and plants in crates reach this building from all the corners of the earth—from Iran and Peru and Kenya and Thailand.

U. S. farm production has doubled during the past half century. There are many reasons for this. But much of the credit must go to the little-known work of the plant hunters.

Most of the plants we get from abroad are already known; they are bought or else traded for our own. But many are the discoveries of PEI plant hunters exploring remote regions.

AID FOR COTTON

One of the most important finds was a new cotton plant. At the turn of the century, the boll weevil★ was ruining our cotton crops. Uncle Sam decided to fight the boll weevil with plant hunters. He sent two of them to Central America to find a better variety of cotton.

The hunters were gone for 18 months. Finally, in the sun-baked cottonfields of southern Mexico, they found what they were looking for. It was a local kind of cotton known as *acala*, a plant with a fine, long fiber, which could survive without much water.

The plant explorers brought back a few seeds of acala. The seeds proved an instant success. Today, the acala crop in California, Arizona, and New Mexico brings in a half-billion dollars a year. The expedition to find it cost only $25,000.

In 1913, three plant explorers discovered the navel orange in Brazil. Today it forms the backbone of the 128-million-dollar-a-year-California citrus industry.

THE AVOCADO ARRIVES

Another plant hunter—F. Wilson Popenoe—went on an expedition to the West Indies shortly after World War I. He "brought back alive" a little-known tropical fruit. Today, it is a highly important cash crop in Florida and California. The fruit? You can buy it at your corner grocer's. It's the avocado★.

Perhaps the biggest discovery was the soybean. In the late 1920s, W. J. Morse made an expedition into Japan and northern China. That expedition paid off handsomely. Morse brought back improved varieties of soybeans which are today grown on more than 14 million acres in the United States.

The raising of soybeans has become a billion-dollar-a-year industry in this country. And no wonder! Soybeans provide essential raw materials for more than 400 manufactured products, such as paints, plastics, oils, printing inks, adhesives, soaps. They're also a food, which is nutritious and has many uses.

These are just a few examples of

★ Means word is defined on page 18.

how the plant explorers have helped the U. S. farmer. Thanks to the explorer he gets more from his land and his labor.

The explorers are helping our doctors, too. They are searching for plants which will help medical scientists cure disease. One party of plant hunters is now in Mexico searching for plants that might yield cortisone. Cortisone is a drug which relieves the pains of arthritis.

And someday plant scientists hope to find a plant which will yield new drugs to fight heart ailments. No one knows where to look for that one. "For all we know," said one scientist, "it may be growing in our backyard."

TWO-WAY STREET

Every day you eat foods which plant explorers brought to this country. The livestock which provided your meat may have fattened up on fodder introduced from other countries. The medicine your doctor orders may have come to us through the plant explorers.

But plant exploring isn't a one-way street. All over the world people are sitting down to eat food which came from U. S. plants. In 1951 alone, our Government sent 11,260 plant strains and plantings to 76 countries.

Chinese farmer harvests soybeans in Manchuria. Here U. S. plant explorers found seeds of plant which is now an important food and oil crop in U. S.

VOLUME 32 NUMBER 11 APRIL 22, 1953

Citizenship Quiz

RATE YOURSELF: 90-100—Good work! 80-89—Better than average; 70-79—Fair; Below 70—How about more work?

1. ON OUR FARMS

Several main ideas ran through the articles on farming in the U. S. Put an F by each of them in the following list. Put an X by the ideas which are false. Score 5 points each. Total, 30.

__1. Fewer and fewer farmers are feeding more and more people.

__2. The last 75 years have brought tremendous changes to U. S. farms.

__3. Hydroelectric plants, for producing aluminum, are bringing new prosperity to our farms.

__4. Most modern U. S. farms are completely lacking in comforts enjoyed by city and town dwellers.

__5. Progress in soil conservation, chemistry, and machinery has helped U. S. farmers produce more food with fewer workers.

__6. The U. S. shares its farm progress with other countries.

My score_____

2. BRING 'EM BACK ALIVE

Check the correct ending to each. Score 5 points each. Total, 25.

1. Plant exploring started hundreds of years ago. Of the major crops now grown in the U. S., how many were born abroad?
   a. all. b. half. c. none.

2. U. S. plant explorers work for the Department of
   a. Labor. b. State. c. Agriculture.

3. Plant hunters improved our cotton crop by bringing back
   a. boll weevils. b. acala cotton. c. navel oranges.

4. Perhaps the biggest discovery came from China and Japan. It was
   a. avocados. b. bananas. c. soybeans.

5. The explorers are also looking for plants to help
   a. doctors. b. aviators. c. miners.

My score_____

3. FARM PROGRESS

In each of the following, one word has been scrambled. Unscramble it and write the correct word on the line. Score 2 points each. Total, 10.

1. The farmers now have many CHINAMES to help them on the farm

_____

2. An early invention in that field was the cotton gin developed by EIL TINYHEW.

_____

3. And the man who invented the reaper was SCURY MCMICCORK.

_____

4. New and better kinds of RIFLERTIZE also help farmers produce more.

_____

5. The 4-H Clubs and the URFUTE FRASMER help train farm youth.

_____

My score_____

4. WHAT'S NEW?

Help the TV announcer make his summary of the news by circling the correct word or phrase within the parentheses. Score 5 points each. Total, 35.

Hopes are high these days that peace will soon come to (Kenya, Iceland, Korea). The U. S. Congress is debating a bill which would give (offshore oil, free milk, atom bombs) to the states. Good news from Florida and Texas—the (locusts, spoonbills, Canadian geese) are increasing. And Scottish fish are in for a shock which will (save their lives, kill them, turn them purple). The map I have here shows (Antarctica, the Arctic, the Middle East). It's in the news because of a newly proposed (atom bomb test, air route, railway). A famous ship is going to be repaired and sailed to Mobile, Ala. It's (the *Missouri*, *Old Ironsides*, the *Hartford*).

My score_____ Total score_____

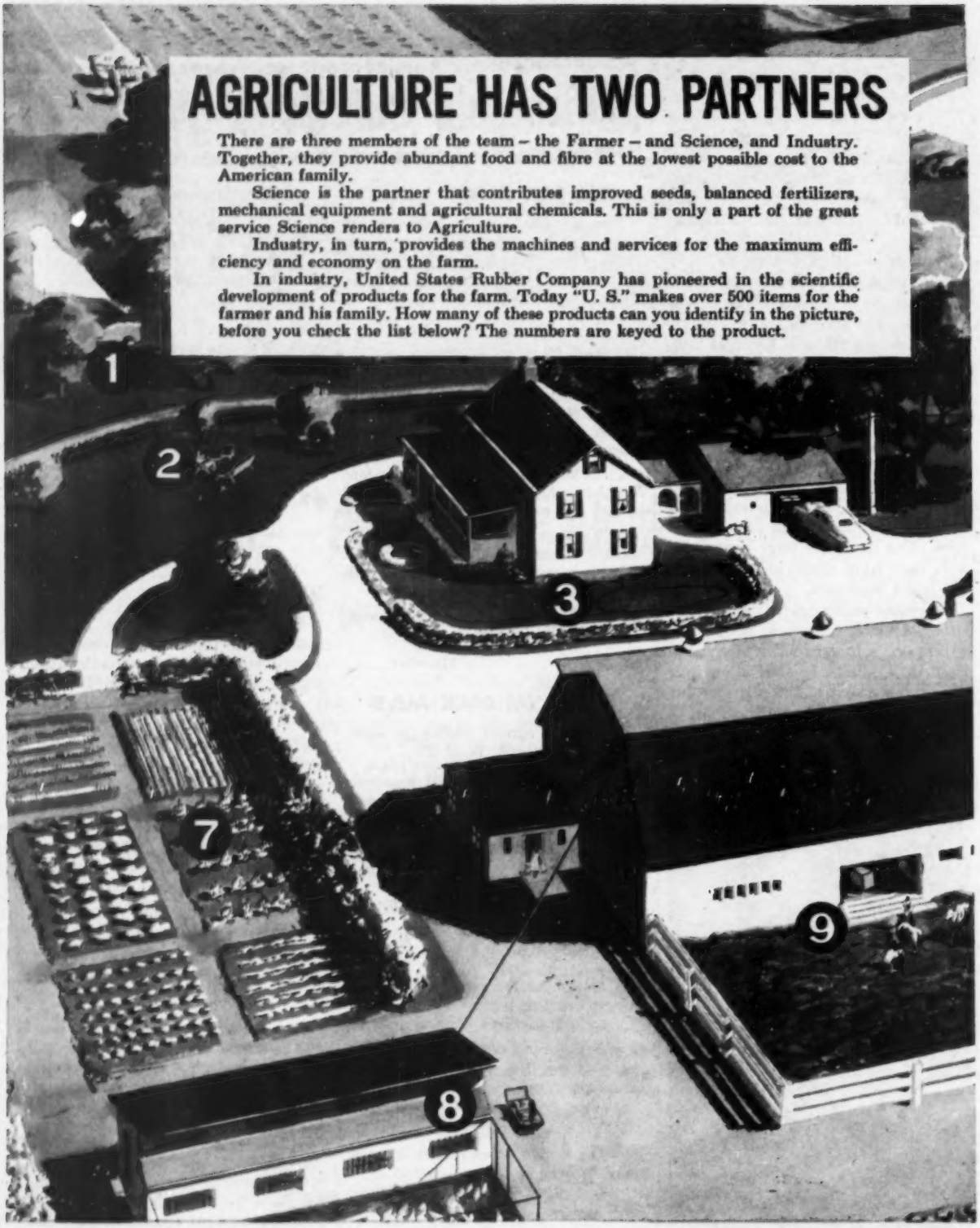
AGRICULTURE HAS TWO PARTNERS

There are three members of the team – the Farmer – and Science, and Industry. Together, they provide abundant food and fibre at the lowest possible cost to the American family.

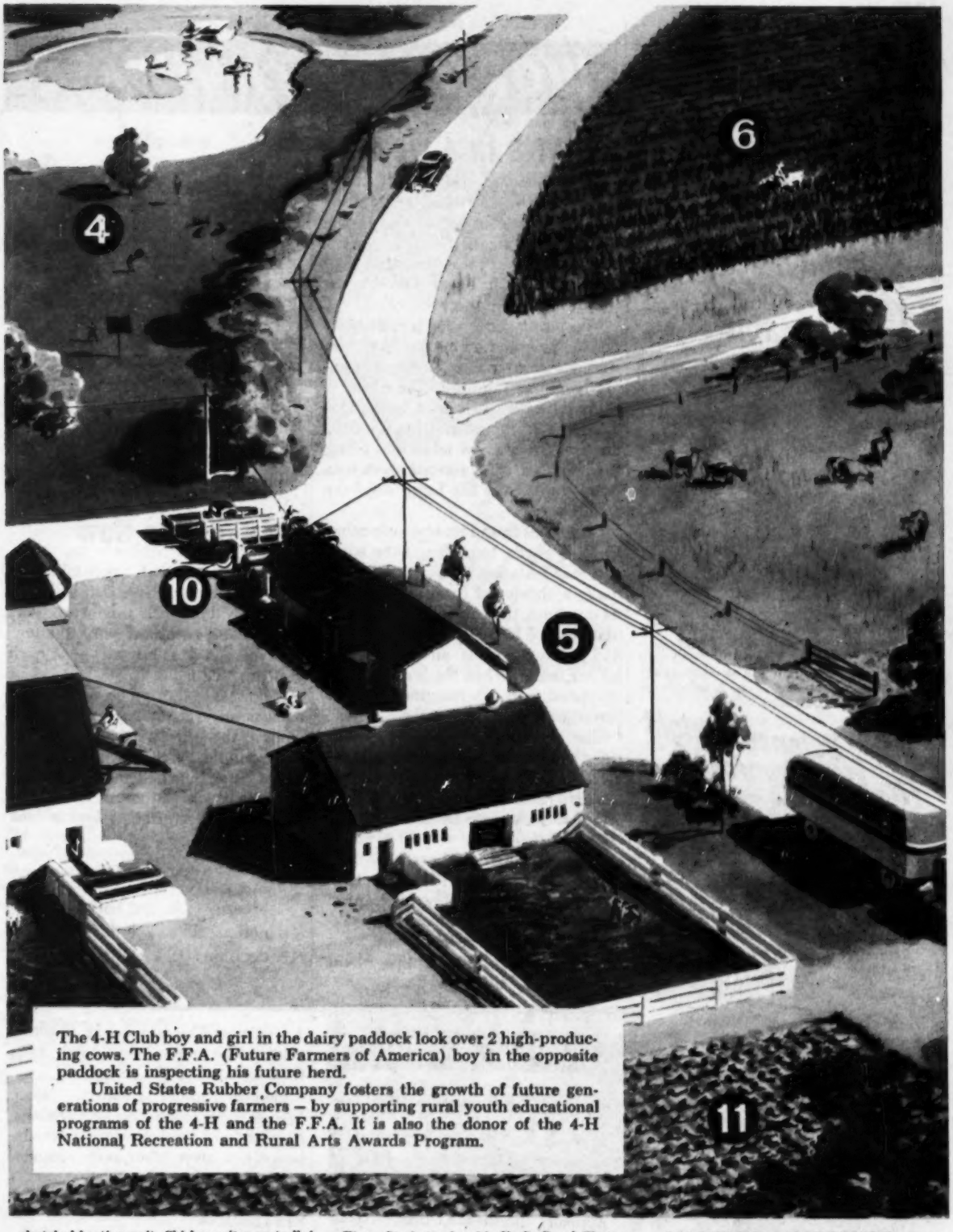
Science is the partner that contributes improved seeds, balanced fertilizers, mechanical equipment and agricultural chemicals. This is only a part of the great service Science renders to Agriculture.

Industry, in turn, provides the machines and services for the maximum efficiency and economy on the farm.

In industry, United States Rubber Company has pioneered in the scientific development of products for the farm. Today "U. S." makes over 500 items for the farmer and his family. How many of these products can you identify in the picture, before you check the list below? The numbers are keyed to the product.



1—Sprayer equipped with *U. S. Royal* Rib Implement Tires and U. S. *Matchless* Spray Hose. The men are wearing U. S. *Raynster* protective clothing while spraying *Phygon XL*, a fungicide, and *Aramite*, a miticide. The pick-up baler in hay field has *U. S. Royal* Implement Tires and Draper Belts. **2**—Farmer's wife wearing U. S. *Rubiyarn* gingham dress. Her shoes are U. S. *Kedettes*. Lawn furniture is upholstered in U. S. *Naugahyde*. **3**—Home has U. S. Electrical Wires and Cables, *U. S. Koylon* Mattresses, Pillows and Cushions, U. S. Mats and *Rug Underlay*, *Asbestos* Ironing Board Cover, U. S. Household Gloves and *Satusply* table and sink coverings. Growth of lawn is controlled by *MH-40*, a U. S. agricultural chemical. Around house is U. S. *Royalite* Garden Hose, bike with *U. S. Royal* Chain Tires, car with *U. S. Royal Air Ride* Tires. **4**—Swimmers wear U. S. *Howland* Swim Cap, U. S. Bathing Shoes, suits made with U. S. *Lastex*. Ballplayers wear *U. S. Keds* shoes. **5**—Highway is paved with U. S. *Surfa-Seals* for longer wear. Truck has U. S. Royal Fleetmaster Tires. Roadside grass controlled by *MH-40*. **6**—Tractor in cornfield has U. S. Royal Tri-Rib and Gripmaster Tires, plus U. S. Torsional Spring Seat. Corn seed has been treated with *Spergon* seed protectant. Wild onions in pasture are controlled by *MH-40*. **7**—Tomatoes sprayed with *Phygon XL* fungicide. Onions and potatoes treated with *MH-40* to prevent sprouting during storage. Weeds in vine crops controlled by *Alanap-1* chemical. **8**—Chicken brooders heated by *Uskon*



The 4-H Club boy and girl in the dairy paddock look over 2 high-producing cows. The F.F.A. (Future Farmers of America) boy in the opposite paddock is inspecting his future herd.

United States Rubber Company fosters the growth of future generations of progressive farmers – by supporting rural youth educational programs of the 4-H and the F.F.A. It is also the donor of the 4-H National Recreation and Rural Arts Awards Program.

electrical heating unit. Chicken mites controlled by *Aramite*. Egg cart has U. S. Tires. In all farm buildings are U. S. Electrical Wires and Cables. **9**—Man leaving milk house (left) has *U. S. Royal* Boots, U. S. Rubber Apron. In dairy barn are feed cart with U. S. Tires, and U. S. *Rainbow* Creamery Hose, rubber milking machine parts, *U. S. Matchless* Fire Hose, U. S. *Giant* Conveyor Belting. Manure spreader at right has *U. S. Royal* Ground Drive Tires. **10**—Pick-up truck with *U. S. Royal* Master Grip Tires. Stock truck with *U. S. Royal* Fleetway Tires. *U. S. Royal* Gasoline Hose on pump. In farm shop are U. S. *Royalite* Grinding Wheels, U. S. *Peerless* Transmission Belts, corn husker rolls, U. S. *Security* Friction Tape, *Rainbow* V-Belts and other items. **11**—Sugar beet seed treated with *Phygon* seed protectant. The mature beets are sprayed with *MH-40* to prevent sprouting during storage.

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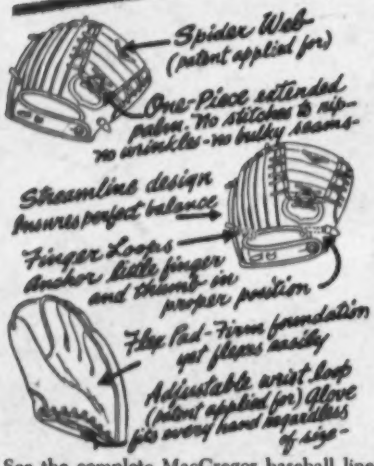
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WORDS TO THE WISE

WHAT'S IN A WORD?

capricious (kuh-PRIHSH-uhss). Have you ever watched goats playing? They bounce about with quick, uneven movements. Goats are frisky animals, and, as they play, they skip and jump. You never know what they're going to do next.

You never know what a *capricious* person is going to do next, either. For *capricious* means "flighty, changing from one minute to the next." A capricious person—like a goat—does whatever it comes into his mind to do. You never know what he's going to be up to next. The word *capricious* comes to us from the Latin word for goat, *capra*.

Capra has found its way into other English words, too. There's the word *cab*, for instance. Our word *cab* is really a shortened form of *cabriolet*. At one time, the cabriolet was a popular type of horse-driven carriage. It had just two wheels, and was driven by one horse. When the horse picked up speed, you can imagine how the carriage bounced and jerked!

The sight of a fast-moving cabriolet reminded people of a playful goat. So they took the word *capriola*—Italian first cousin to *capra*—and called this carriage by the "goatish" name *cabriolet*.

You've probably heard of the Italian Isle of *Capri*. It's a beautiful little island in the Bay of Naples. Capri, too, has a "goatish" background. Its name was taken from *capra* because originally this island was inhabited by many goats.

Look up in the sky some bright evening, and see if you can find the constellation of stars known as *Capricorn*. Then see if the outlines of this constellation remind you of a goat's horn. This is what it reminded people of long ago. That's why the constellation was given the name *Capricorn*: from the Latin *capra*, goat, and *cornu*, horn.

Here's How

Chances are that *capricious* is a new word to you. Even if it isn't, you probably don't use this word very often. But it's a useful word to know, and you can fix it in your memory, if you practice using it.

Below is a group of nouns. Use each noun in a sentence with *capricious* as the adjective that modifies it. For example, here's one way that you might use the first noun, *breeze*: "Our boat was just about to win the race, when a *capricious breeze* took us off our course."

Nouns

breeze	behavior
notion	monkey
decision	weather
child	

STARRED ★ WORDS

Words starred ★ in this issue are defined here.

antibody (AN-tih-BOD-ih). Noun. A substance that forms in the body to overcome other (sometimes harmful) body substances.

Aramaic (ar-uh-MAY-ihk). Noun. Language spoken in Palestine during the lifetime of Jesus.

avocado (AHV-uh-KAH-doh). Noun. The alligator pear. A pear-shaped tropical fruit with yellow, buttery flesh.

boll weevil (BOHL WEE-v'l). Noun. A beetle pest that lays its eggs in cotton plants. The worms that hatch from these eggs eat up the cotton.

papyrus (puh-PYE-ruhss). Noun. Kind of paper much used by Egyptians, Romans, and Greeks. Made from the papyrus, a river plant once common along the banks of the Nile.

plumage (PLOOM-ihj). Noun. A bird's feathers.

recognize. Verb. In government, to acknowledge officially the existence of another government, a claim, and so on.

scroll (SKROHL). Noun. An ancient type of book, written on a long sheet of paper that is kept in a roll.

Junior Writers

Fog Monster

The fog crept into a valley
Like a rat in a tin-can alley.
It pressed its misty breath
In a silence like death.
It blew on the panes of glass
And on the eyes of those who passed.
It blurred the way for man and beast,
This monster from the rainy East.

Linda Lesker, Grade 6
Winthrop Jr. H. S., Brooklyn, N. Y.
Teacher, Josephine Callahan

Princess

Just a painted pony you may be,
But how we love to gallop free—
Free of work and worry,
Free of the day's hurry,
Free to breathe the air.
Come, Princess, let's be going,
And feel the cool wind blowing.

Ronny Gaum, Grade 8
Allendale (N. J.) Grammar School
Teacher, Mrs. Willetta R. LaRoe

Giggles and Laughs

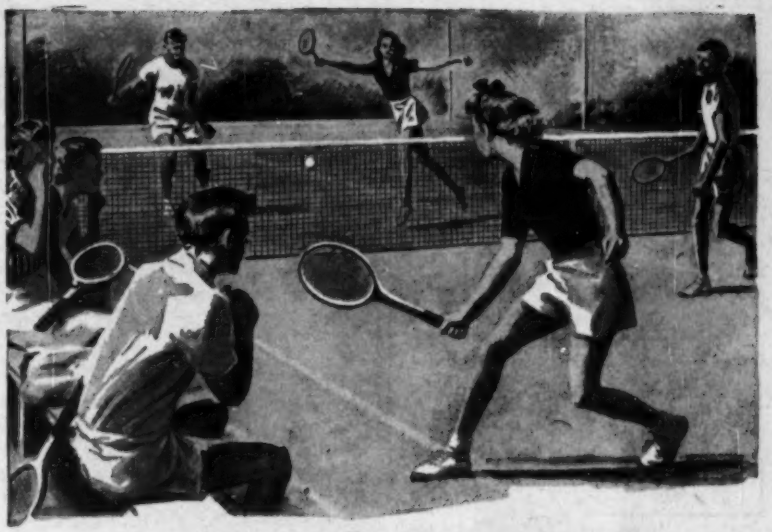
This is the story of giggling Ann.
She laughed at woman, child, and man.
She giggled all day
And she laughed all night.
She giggled and laughed
With all of her might.
She giggled in church
And she laughed in bed.
She giggled and laughed
Until she saw red.
She giggled at home
And she laughed in school.
She giggled and laughed
Like a crazy fool.
She giggled on the street
And she laughed at Uncle Ned.
She kept giggling and laughing
Until she was dead.
She giggled in heaven.
She couldn't keep still.
She giggled and laughed
And made everyone ill.

Betty Dumont, Grade 8
Ellenburg (N. Y.) Central School
Teacher, Mrs. Eunice C. Senecal

Niagara

Said the fresh little drop to Niagara Falls,
"Am I helping to make a groove in your walls?"
"No," said Niagara without delay,
"No little drip could wear me away!"

Class of Room 2, Grade 7
Gray Ave. Elementary School, Yuba City, Calif.
Teacher, Boyd A. Johnson



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Right This Way

Alan Silverman, P. S. 180, Brooklyn, N. Y., wants to know:

If you're at a dance, and the girl you like is dancing with a boy who's better looking and a better dancer than you are, should you cut in? Or would it make the girl angry?

Don't worry; go ahead and cut in if you'd like to. All girls like compliments and, to many, a cut-in at a dance is the nicest compliment of all. Just because her present partner is better looking and does some fancier footwork than you do doesn't mean that he's more fun to be with!

If you cut in politely, by tapping the other boy on the shoulder and saying "May I cut in?," the girl won't be angry. She'll be pleased and flattered by so much attention!

A girl from the Kelley School, Cambridge, Mass., writes:

If a boy asks you to go roller skating with him, and you'd like to date him but can't skate, what should you do?

You should tell the boy frankly: "I'd love to go, but I've never skated before." Then, he can either say that he'd be glad to teach you, or suggest something else to do.

If you accept without explaining, he might think you're an expert skater, and you couldn't blame him for being annoyed or disappointed later. And if you refuse without explaining, he might think you don't like him. But if you admit right away that you don't know how to skate, he'll know what to expect.

However, if he's inviting you to a skating party, that's not the best place to learn how to skate. You could then say something like: "I'd love to go out with you, but I don't know how to skate. Perhaps you'd rather invite a skater, and we could have our date some other time."

Some Fun!

Poor Moon

Irma: "Did you know that the moon is going broke?"

Jane: "How could that happen?"

Irma: "The newspaper said it's down to its last quarter."

Tina Cerasio, P. S. No. 6, Jersey City, N. J.

Runs in the Family

Charlie: "What's that string tied around your finger for?"

Don: "To remind me to mail my sister's letter."

Charlie: "Did you?"

Don: "No. She forgot to give it to me."

Jean Vanderhoid, Underwood, N. Dak.

New Deck Hand

A mother received the following letter from her recently enlisted son:

Dear Mom:

I joined the Navy because I liked the way the ships were kept clean and tidy. But I never knew until this week who keeps them so clean and tidy.

Love,

Jim

Mary Ann Taylor, Westfield (Mass.) Intermediate Jr. H. S.

Delayed Answer

Passenger: "What's the use of having a timetable if the train never runs on time?"

Conductor: "If we didn't have a timetable we couldn't tell you how late the train is."

Norman Reierson, P. S. 239, Brooklyn, N. Y.

Tongue Twister

Two tooters who tooted the flute,
Tried to tutor two tutors to toot.
Said the two to the tooters,
"Is it harder to toot,
Or to tutor two tutors to toot?"

Harriet Tsakis, Nichols School, Evanston, Ill.

Modernization

A lawyer was introducing himself to a new client. "I represent Button, Button, Button, and Button," he said. "My name is Zipper—I replaced one of the Buttons."

Joylyn June Isham, Mackville (Ky.) School

Joke of the Week

***Tim:* "Did you hear about the glowworm that bumped into an electric fan?"**

***Pete:* "No. What happened?"**

***Tim:* "He was de-lighted."**

Roy Schollenberger, Cinnaminson School, Riverton, N. J.

Passing Shots

NOTICE how Jack Kramer is lowering the boom on Frank Sedgman these days? Makes me feel good. 'Cause I've been saying all along that Sedgman isn't the super tennis player he's cracked up to be.

When Sedgman turned pro last winter, most experts felt he'd blow Kramer off the court. Wasn't he younger, in better shape, and sharper? And wasn't Kramer slipping?

That's the way the experts reckoned. It made sense, too. But I didn't go along with it. I just didn't share everybody's lofty opinion of Sedgman. Sure, he was the greatest amateur player in the world. But I didn't think he was one of all-time greats—like Tilden, Perry, Budge, and Kramer.

When a really great player reaches his peak, he never loses any important matches. Check the records of the four players I've mentioned, and see how many big matches they lost when they hit the top. Very, very few.

Sedgman, on the other hand, always seemed to be losing matches. Savitt would take him. McGregor would knock him off. Seixas did it once or twice. Sure, Sedgman would win most of the big tourneys. But he'd also lose to some ordinary players.

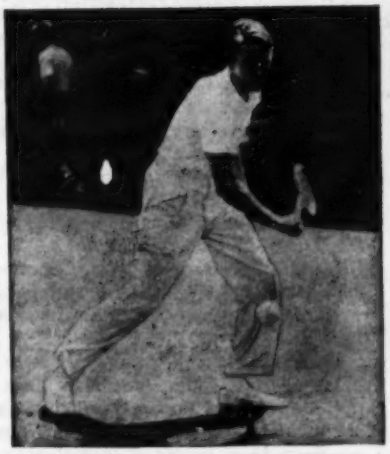
That's why I never rated him as a truly great star. I felt that Kramer, even though slipping, could handle him. And it appears that I was right. Last time I looked, Jack was about 15 matches up on Sedgman in their cross-country duels.

▶ On the subject of tennis, I don't understand why so many fans keep moaning that American tennis is slipping. It's true that the Australians have won the Davis Cup three years in a row. But you must remember that our great players don't remain amateurs for very long. Soon as they hit the top, they turn pro.

Suppose Budge, Kramer, and Gonzales had never turned pro? Why, we'd have won the Davis Cup for the last 10 years in a row!

It'll be interesting to see how Australia makes out without their two stars, Sedgman and McGregor. I don't think they'll be able to hold on to the Davis Cup. We may not have the fine young players that the Aussies have, but our older players ought to be good enough to polish them off.

I don't think Uncle Sam will ever have to worry about his tennis prospects so long as California remains in the Union. The Golden State is loaded with tennis talent, and will be turning up another Budge or Kramer any one of these days now.



Jack Kramer, still the world's greatest tennis player. Just ask Frank Sedgman!

▶ If you and your friends are interested in holding an intramural tennis tournament, *see your Coach or Athletic Director.* He may arrange for such a tournament by filling out the coupon below. We'll furnish him with free draw-charts and free medals for the winners.

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—HERMAN L. MASIN, *Sports Editor*

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NEW MOVIES

✔✔✔✔Tops, don't miss. ✔✔✔Good. ✔✔Fair. ✔Save your money.

✔✔✔✔**CALL ME MADAM** (20th Cent.-Fox). Not too long ago everybody was trying to whistle the tricky melody of *You're Just in Love* from Irving Berlin's Broadway stage hit, *Call Me Madam.* Now it's going to start all over again. The song is featured in this sparkling movie version of the show, along with a whole dozen of Berlin's best. Ethel Merman, also from the original show, handles the greater part of them. The rest are distributed among young Donald O'Connor, pretty Vera-Ellen, and George Sanders (who reveals a rich baritone). Ethel is our lady Ambassador to tiny Lichtenburg. She is determined to prevent a U. S. loan to the Lichtenburgers—until she meets their handsome Secretary of State, George Sanders. Then her theme song becomes, *Can You Use Any Money Today?* The show is big and bright.

Making one of her rare screen appearances, Ethel Merman repeats her Broadway success, while agile Donald O'Connor steals just about every scene that's not nailed down. He proves himself in this one easily the best young song-and-dance man in Hollywood.

✔✔✔**BY THE LIGHT OF THE SILVERY MOON** (Warner Bros.). Here is a pleasant musical starring Doris Day and Gordon MacRae. The plot, based on Booth Tarkington's popular *Penrod* stories, presents MacRae as a soldier returning from World War I. He wants to marry Doris Day, but not until he has saved enough money to do it right. The delay leads to many complications. Most of these are caused by the presence in their small town of an attractive French actress—and the determination of Doris's younger brother to play detective. Although misunderstandings part the couple frequently, they are together often enough to sing a good half dozen duets, including the title song. It's an amusing story, touched up with many chucklesome lines.

✔**THE GIRL WHO HAD EVERYTHING** (M-G-M). As the spoiled daughter of lawyer William Powell, Elizabeth Taylor falls in love with Fernando Lamas. He is a racketeer under fire in Washington. For a time it looks as if Lamas will reform and our sympaties are all with the young couple—especially when Powell determines to send Lamas to jail rather than have him for a son-in-law. Then, for no reason at all, Lamas returns to his hoodlum ways and we are left with sympathy for no one—except perhaps the actors caught up in this talky and boring drama.

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STAMPS

1953 U.S. Program

At least seven more U. S. commemoratives will be issued this year. On April 30 the 3-cent Louisiana Purchase stamp goes on first-day sale at St. Louis, Mo. Other 1953 commemoratives will honor the:

25th anniversary of the Future Farmers of America organization;

50th anniversary of the Wright Brothers' first flight;

75th anniversary of the founding of the American Bar Association;

100th anniversary of U. S. Commodore Matthew Perry's mission to Japan;

100th anniversary of the Gadsden Purchase;

late U. S. General George S. Patton.

Watch this column for issue dates, places of first-day sale, and descriptions of the stamps listed above. U. S. Congressmen have proposed several other commemoratives. These would honor:

Dr. Elizabeth Blackwell, first woman doctor of modern times; the first trial run of a steam locomotive in the Western Hemisphere; the discovery of New York Bay; the 50th anniversary of the Ford Motor Company; coal miners and the coal industry; the first U. S. police department; Hawaii (if it gains statehood).

REMINDER: For first-day covers of the Louisiana Purchase commemorative, send self-addressed envelopes to the Postmaster, St. Louis, Mo., before April 30. Put a light cardboard filler in each envelope and seal or turn in the flap. Then enclose envelopes in an outer envelope along with a money order or coins. You may send for as many as 10 first-day covers.

Like to collect stamps of one subject? Every year more than 15 countries regularly issue flower stamps. Next month the Netherlands will issue a set of five flower stamps. Two of the stamps are shown below. The 10-plus-5 cent carmine shows an anemone, the 20-plus-5 cent blue shows an iris.

Wesley Associates, N.Y.C.

Two of the Netherland flower stamps

Tea for Two

Jerry: "Would you join me in a cup of tea?"

Mike: "Do you think there's room for both of us?"

Ann Booth, Geneva County High School, Hartford, Ala.

Wrong Trousers

Sam: "Joe, if you had $5.00 in one pants pocket and $10.00 in the other one, what would you have?"

Joe: "Somebody else's pants."

Lois Dutcher, Immanual Lutheran School, Crystal Lake, Ill.

Keep Calm!

First Hunter: "I think I see cannibals approaching."

Second Hunter: "Well, let's not get into a stew about it."

Franklin Baker, R.F.D. 5, Richmond, Va.

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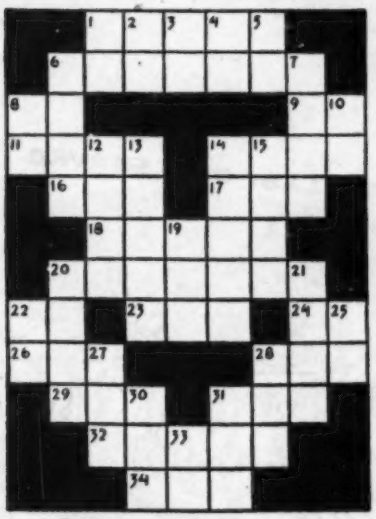
quiz-word PUZZLE



This bird, often called the "crow-blackbird," comes around in the mud season of early spring. Its name is hidden in the puzzle.

There are 42 words in the puzzle. Score two points for each you get right. Perfect score, 84.

ACROSS

1. Italian seaport where Columbus was born.
6. Mystery bird.
8. That man.
9. Roman numeral for six.
11. Big farm crop; a favorite with horses.
14. Red vegetable.
16. Decay.
17. Rowing implement.
18. Enormous in size.
20. Biggest.
22. First note of the scale.
23. Signal of distress or danger.
24. Either.
26. Not against.
28. I am, he is, you - - - .
29. In addition.
31. Anger.
32. Color of the mystery bird.
34. Opposite of night.

DOWN

1. Greek (*abbrev.*).
2. Each (*abbrev.*).
3. North Carolina (*abbrev.*).
4. Popular term meaning "all right."
5. Nickname for Alfred.
6. In driving a car, you change from one to another.
7. At all times.
8. Westward - - !
10. Neuter pronoun.
12. Garment worn by the ancient Romans.
13. Moves; changes position.
14. These make up a skeleton.
15. Takes in food.
19. In time past.
20. Plunder or booty taken in war.
21. Ripped.
22. Direction Finding (*abbrev.*).
25. Second note of the scale.
27. Steal from.
28. Noah's boat.
30. Not young.
31. Covered with ice.
33. Anti-aircraft (*abbrev.*).

Answers this week in Teacher Edition; next week in your edition.

Answers to April 15 Quiz-word Puzzle

ACROSS: 1-red; 4-oar; 5-barer; 7-worm; 9-wolf; 12-ire; 13-bee; 14-seam; 16-ride; 17-satin; 19-tress; 20-Pa.; 22-E.N.E.; 23-no; 25-arms; 27-stew; 29-lee; 30-use; 31-ace; 33-int.; 34-he; 35-Va.

DOWN: 1-roam; 2-ear; 3-drew; 5-breast; 6-robins; 7-Wis.; 8-ore; 10-led; 11-fee; 15-mares; 16-rises; 18-ten; 20-pal; 21-area; 23-nest; 24-owe; 26-mech.; 28-tuna; 32-E.E.; 33-IV.

Danger Zone

Joe: "This school isn't a safe place for anybody. I'm going home."

Arthur: "What makes you say that?"

Joe: "I just heard the teacher say you'd find dynamite in the dictionary."

Francis Whitaker, Carl Pucket Jr. H.S., Kelso, Wash.

Splitting Hairs

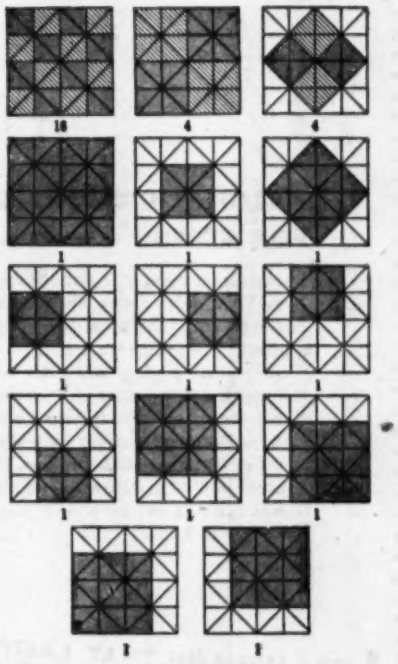
Customer: "How much are your size 13 shoes?"

Clerk: "$7.50 a foot."

Joan Powell, Simon Muhr School, Philadelphia, Pa.

Match Your Wits

(Solution to square puzzle)



"He says he never gets tired after he's had an RC!"

YES, AND RC IS BEST BY TASTE-TEST, TOO!

Two full glasses in the BIG bottle!

Enjoy a frosty bottle today!

HAVE YOU HEARD?

AUTOMATIC CHOW LINE FOR COWS

Bossy has it good at Farmer Chernoff's New York dairy farm. She eats at a "cafeteria." Come meal time, a G-E motor starts a moving lunch counter, and a silage unloader serves the meal. After dinner the whole works stops, and Bossy takes a nap. Of course, Farmer Chernoff uses electricity in other ways on his farm, too. His electric bill? $12. "How many hired hands can you get for that?" he wants to know.

FLIES 10 MILES UP... AND NEVER LEAVES THE GROUND

G-E plane engineers have a new high-altitude test chamber for trying out equipment under make-believe flying conditions. Fuel pumps for jets can be "flown" to 60,000 feet at climb rates of over 20,000 feet per minute, and at angles as steep as 60°. Observation ports let engineers peer inside and study flight conditions.

BIDDIES LAY BEST TO BACH

A California chicken rancher has taken to throwing musical hen parties. He pipes recorded music to his 12,000 chickens over ten General Electric loudspeakers. The hens love it, says Farmer Moomaw, and they lay more eggs. He claims the audience prefers Bach to boogie, and they get restless when the concert is over.

You can put your confidence in—

GENERAL ELECTRIC

WORDS TO LIVE BY—5

Those who are the happiest are those who do the most for others.

—Booker T. Washington

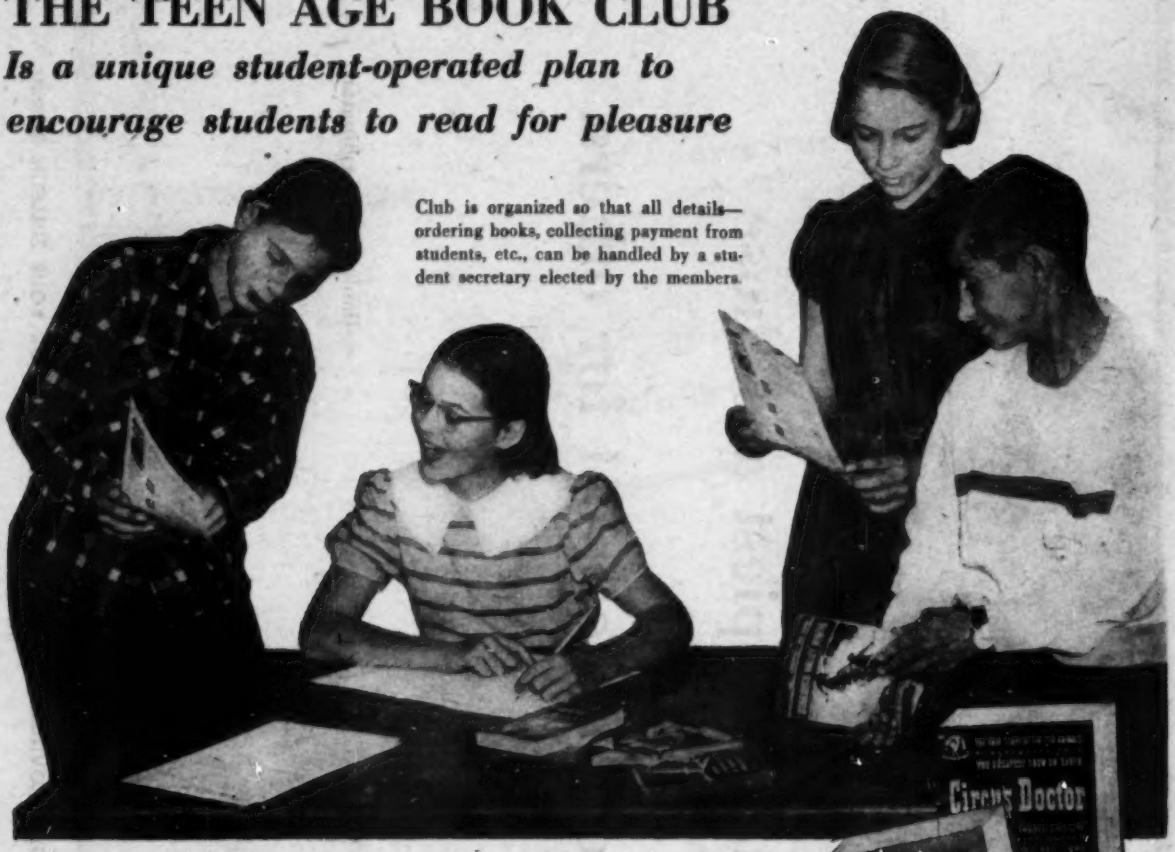
Contributed by Elizabeth Schoenherr, Norton High School, Norton, Mass.

ONE OF A SERIES OF INSPIRATIONAL MESSAGES PROVIDED BY SCHOLASTIC MAGAZINES FOR YOUR BULLETIN BOARD

HOW TO GET YOUR STUDENTS TO READ MORE

THE TEEN AGE BOOK CLUB

Is a unique student-operated plan to encourage students to read for pleasure



Club is organized so that all details—ordering books, collecting payment from students, etc., can be handled by a student secretary elected by the members.

Plan to start a Club in your class next fall. Send for information and free materials.

The Teen Age Book Club enables boys and girls in grades 7 to 12 to obtain worthwhile books at a cost within the average student's budget. More than 8,000 schools now use this service which gives students benefits similar to those supplied to adults by the Book-of-the-Month Club and the Literary Guild. The popularity of the Teen Age Book Club is evidenced by the fact that this year student members have bought more than 1,500,000 books.

Teen Age Book Club offers students a choice each month of sixteen 25¢ and 35¢ books, selected by a board of reading experts, PLUS A FREE DIVIDEND BOOK FOR EVERY FOUR BOOKS PURCHASED.

MAIL COUPON FOR FREE MATERIALS

TEEN AGE BOOK CLUB
351 Fourth Ave., New York 10, N. Y.

I am interested in starting a Teen Age Book Club in my class next fall. Please send, without cost or obligation, complete information and free materials.

Name _____

School _____ Grade _____

Address _____

City _____ Zone ____ State _____

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